IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
Before the Board of Patent Appeals and Interferences

In re Patent Application of

SYMES

Serial No. 09/960,728

Filed: September 24, 2001

Title: IMPROVED SINGLE INSTRUCTION MULTIPLE DATA (SIMD) PROCESSING METHOD AND APPARATUS

Atty Dkt. 550-258
C# M#

TC/A.U.: 2183

Examiner: D. Huisman

Date: May 13, 2005

Mail Stop Appeal Brief - Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

☐ **Correspondence Address Indication Form Attached.**

☐ **NOTICE OF APPEAL**
Applicant hereby **appeals** to the Board of Patent Appeals and Interferences from the last decision of the Examiner twice/finally rejecting applicant's claim(s). $500.00 (1401)/$250.00 (2401) $

☒ An appeal **BRIEF** is attached in the pending appeal of the above-identified application $500.00 (1402)/$250.00 (2402) $ 500.00

☐ Credit for fees paid in prior appeal without decision on merits -$ ( )

☐ A reply brief is attached. **(no fee)**

☐ Petition is hereby made to extend the current due date so as to cover the filing date of this paper and attachment(s)
One Month Extension $120.00 (1251)/$60.00 (2251)
Two Month Extensions $450.00 (1252)/$225.00 (2252)
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Less month extension previously paid on -$( )

TOTAL FEE ENCLOSED $ 500.00

Any future submission requiring an extension of time is hereby stated to include a petition for such time extension. The Commissioner is hereby authorized to charge any deficiency, or credit any overpayment, in the fee(s) filed, or asserted to be filed, or which should have been filed herewith (or with any paper hereafter filed in this application by this firm) to our **Account No. 14-1140.** A duplicate copy of this sheet is attached.

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Signature:

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

In re Patent Application of
SYMES
Serial No. 09/960,728
Filed: September 24, 2001

Confirmation No.: 4210
Atty. Ref.: 550-258
Group: 2183
Examiner: D. Huisman

For: IMPROVED SINGLE INSTRUCTION MULTIPLE DATA (SIMD) PROCESSING METHOD AND APPARATUS

* *

APPEAL BRIEF

On Appeal From Group Art Unit 2183

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* *

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APPEAL BRIEF

Sir:

I. REAL PARTY IN INTEREST

The real party in interest in the above-identified appeal is ARM LIMITED by virtue of an Assignment of rights from the inventor to ARM LIMITED recorded on December 13, 2001, at Reel 12367, Frame 0984.

II. RELATED APPEALS AND INTERFERENCES

There are believed to be no related appeals, interferences or judicial proceedings with respect to the present application and appeal.

III. STATUS OF CLAIMS

Claims 1-15 stand variously rejected in the outstanding Official Action. The Examiner contends that claims 14 and 15 are indefinite under 35 USC §112, claims 1-12, 14 and 15 are anticipated by the Intel reference under 35 USC §102 and that claim 13 is obvious in view of the Intel reference under 35 USC §103, all as set forth in the Final Rejection.

IV. STATUS OF AMENDMENTS

Appellant has submitted two Amendments after Final in this application. The first Rule 116 Amendment filed February 22, 2005 was denied entry by the Examiner, alleging that it raised "new issues" requiring further consideration and search and indicated that it would not be entered for the purposes of appeal.

The second Amendment under Rule 116 filed March 15, 2005 was similar to the first Rule 116 Amendment, in that it amended the title, corrected the drawings, but did not suggest any amendments of the claims. The Advisory Action mailed April 1, 2005 indicates that the second Rule 116 Amendment would be entered for the purposes of appeal. While the second Advisory Action does not specifically confirm that the new title obviates the objection to the title or that the new replacement sheet of drawings overcomes the objection to the drawings, both as set out in the Final Rejection, it is assumed that these objections have been

obviated in view of the entry of the amendment. Clarification and confirmation by the Examiner is respectfully requested.

V. SUMMARY OF THE CLAIMED SUBJECT MATTER

The present invention relates to the field of data processing systems, and particularly to Single Instruction Multiple Data (SIMD) operations in which data words are manipulated in accordance with a single instruction, where the data words represent multiple data values within those data words.

SIMD operations can increase the efficiency with which a data processing system may operate and is particularly useful in reducing code size and thereby speeding up processing operations. The technique is commonly applied to the field of manipulating data values representing physical signals, such as digital signal processing applications.

It is also known that the size, complexity, cost and power consumption overhead needed to support additional processing capability serves to limit data processing systems. Measures that can add processing capability while at the same time reducing the overhead incurred comprise a significant improvement in data processing systems.

Appellant realized that an efficient packing instruction that allows different portions of two input operand data words to be combined within a packed output

data word using a single instruction provides a reduction in data processing overhead and hence a more efficient operation.

Appellant further realized that a shift operand that allows one of the data words being packed to be selected from a variable position within its input operand data word in a manner that provides the ability to combine an additional data manipulation within the packing operation is a further overhead reduction and consequent data processing improvement.

As a result of the above, Appellant has realized that one of the portions to be combined into the packed output data word may be multiplied or divided by a power of two at the same time that it is being packed together with another data word portion. Appellant's invention recognizes that a packing operation is a relatively simple operation for the data path of a data processing system to perform and that adding additional functionality to the packing operation utilizing circuit elements already present within the data path improves the efficiency of operation without introducing processing cycle time constraints.

Appellant, as set out in claim 1, as shown in Figures 3-5, has an apparatus for processing data comprising a "shifting circuit" (element 18 in Figure 5), "a bit portion selecting and combining circuit" (element 22 in Figure 5) and "an instruction decoder . . . for performing an operation" (elements 16, 18 and 22 are controlled along data path 14 as shown in Figure 5 in the manner illustrated in Figures 3 & 4 and as discussed in the associated specification discussion on page

7, line 5 to page 8, line 24). The means-plus-function structure recited by the instruction decoder is for performing an operation upon a data word Rn and a data word Rm, wherein said operation yields a value given by substeps (a)-(c) as discussed between page 7, line 26 to page 8, line 19.

Independent claim 14 comprises the method of decoding and executing an instruction that yields "a value given by" the same three steps as specified in claim 1. Independent claim 15 is a computer program for controlling a computer to perform the steps of decoding and executing an instruction that yields "a value given by" the same three steps as claims 1 and 14.

Thus, each of Appellant's independent claims 1, 14 and 15 require a structure, method or computer program for providing "**a value given by:** (a) **selecting** a first portion of bit length A of said data word Rn extending from one end of said data word Rn; (b) **selecting** a second portion of bit length B of said data word Rm subject to an arithmetic right shift specified as a shift operand within said instruction; and (c) **combining** said first portion and said second portion to form respective different bit position portions of an output data word Rd."

VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

Claims 14 and 15 stand objected to under 35 USC §112 (second paragraph) as being indefinite.

Claim 15 stands rejected under 35 USC §112 (first paragraph) as failing to comply with the written description requirement.

Claims 1-12, 14 and 15 stand rejected under 35 USC §102 as anticipated by Intel ("IA-64 Application Developer's Architecture Guide" May 1999).

Claim 13 stands rejected under 35 USC §103 as unpatentable over Intel.

VII. ARGUMENT

Appellant's arguments include the fact that the burden is on the Examiner to demonstrate where the Intel reference teaches or suggests the limitations set out in each of Appellant's independent claims 1, 14 and 15, i.e., an operation which "yields a value given by" the recited three-step process. The burden is on the Examiner to properly evaluate the language of Appellant's independent claims and then to demonstrate where there is a disclosure of Appellant's claim language in the single cited reference. Finally, not only does the primary reference, by the Examiner's own admission, not teach the claimed subject matter, the Intel reference actually would lead one of ordinary skill in the art away from Appellant's claimed invention. These arguments will be taken in the order that they occur in the Final Rejection.

1. The claim language - "a value given by" - is clear on its face

In sections 6 and 7 of the Final Rejection, the Examiner objects to claims 14 and 15 under 35 USC §112 (second paragraph) and states that "it is not clear what the meaning is behind 'given by' and how it relates to the three steps performed." In an attempt to accommodate the Examiner's preference for different language, Appellant offered the initial Amendment Under Rule 116 on February 22, 2005. The Rule 116 Amendment proposed a revision to the language eliminating the objected to language of "value given by" and instead reciting that there was an output data word Rd **specified by** the sequence of three steps. The Examiner refused entry of this proposed amendment, arguing that it raised "new issues." Therefore, Appellant has retained the original language of the claim.

Appellant draws the Board's attention to the definition of "given" contained in *Webster's Ninth New Collegiate Dictionary* at page 519 (a copy of which is attached as Exhibit 1), in which "given" is taken to mean "4 a: FIXED, SPECIFIED [at a approximate time]." Thus, the claim language of "given by" is synonymous, by *Webster's* definition, with "specified by," just as proposed in Appellant's Rule 116 Amendment.

The use of the phrase "said operation yields a value given by" merely requires that the instruction decoder perform an operation on data word Rn and

data word Rm, which operation yields a value given by or specified by the following recited steps. The Examiner does not dispute that the value "given by" or "specified by" the recited three steps is definite. The Examiner's only concern apparently is with the phrase "given by," but in view of *Webster's* dictionary, this is a term well known to those familiar with the English language and means the same thing as "specified by."

Whether the sequence is selecting a number from the first bit, selecting a number from the second bit and then combining the two numbers (or some other sequence of events which yields the same value), quite clearly, Appellant's claimed instruction decoder is required to perform some operation upon the two data words, where the operation is limited to those which yield the specified value.

Importantly, it must be noted that while the value is specified, the manner in which that value is arrived at is not specified. For example, 2 + 4 = 6. Therefore, 6 is the value by the two selected operations being added together. The same value could be achieved by a different operation, i.e., 4 + 8 – 6 = 6. Again, there is a different sequence of method steps, but the operation yields the same value. Therefore, Appellant's independent claim 1, as well as independent claims 14 and 15, are limited only by "the value given by" the sequence of steps and not limited to the specific steps themselves.

In view of the above, the Examiner's rejection of claims 14 and 15 (and inexplicably his failure to object to claim 1 on the same basis) is not supported and

the phrase "a value given by" is clear to those having ordinary skill in the art and those familiar with the English language. Any further rejection of claims 14 and 15 (or new rejection of claim 1) is respectfully traversed.

2. The Rejections based upon the alleged lack of antecedent basis

In sections 8-13 of the Final Rejection, the Examiner alleges that there is insufficient antecedent basis for the limitations "said data word Rn" and "said data word Rm" in these claims. Again, Appellant attempted to accommodate the Examiner's concern by specifying (in the preamble of claims 14 and 15) data words Rn and Rm, and yet entry of this Amendment was denied by the Examiner. Because the requirement of the statute is that claim language be sufficiently detailed so that one of ordinary skill in the art can understand the metes and bounds of the application and the claims, and because Appellant's specification clearly identifies the data words Rn and Rm, there is clearly no indefiniteness in these claims.

The Examiner also suggests that claim 15 is indefinite and suggests that Appellant replace "said a computer program" with --said computer program--. Again, Appellant attempted to make the Examiner's suggested correction in the first Rule 116 amendment, but entry was denied by the Examiner. Appellant is of the opinion that while somewhat stilted, the phrase "said a computer program" is clearly definite and can only mean the computer program recited in line 1, as it

makes no sense if it is somehow a different computer program. Again, the language of claim 15 is clear to one having ordinary skill in the art.

In view of the above, there is simply no support for the Examiner's rejections (some of which are characterized as "objections" in the Official Action) as set out in paragraphs 5-13 of the Final Rejection.

3. The Examiner has apparently ignored Appellant's specification supporting the subject matter of claim 15

The Examiner rejects claim 15 under 35 USC §112 (first paragraph) as failing to comply with the written description requirement. Specifically, the Examiner states that he "has been unable to find in applicant's specification, the disclosure of a type of computer-readable medium on which a computer program of claim 15 may be stored."

Initially, it is noted that those of ordinary skill in the art are well aware of "computer-readable medium" comprising tapes, magnetically readable disks, hard drives, optically readable disks and various forms of random access memory, all of which store computer programs. Further, the Examiner's attention was previously directed to page 4, lines 8 and 9 of the specification, which refers to a "computer program product" for storing a computer program for controlling a general purpose computer to act in accordance with the above techniques. This reference to "computer program product" for storing computer programs is a generic

recitation of a "computer-readable medium" as recited in Appellant's independent claim 15.

Additionally, Figures 2 and 5 illustrate the data path within a data processing apparatus in accordance with aspects of the present invention. The myriad of computer-readable mediums which will interact with a general purpose computer to require the computer to operate in the manner of Figures 2 and 5 are well known to those of ordinary skill in the art, and no purpose is served by the Appellant reciting such structures in its application. These are simply well known to those of ordinary skill in the art and need not be illustrated.

The Court of Appeals for the Federal Circuit has consistently held that there is no requirement for *in haec verba* support in a specification for applicant's claim language. As a result, there is simply no basis for the Examiner's rejection of claim 15 under 35 USC §112 (first paragraph) and any further rejection thereunder is respectfully traversed.

4. In a rejection under 35 USC §102, it is incumbent upon the Examiner to first, properly construe the claim, and second, to demonstrate where the properly construed claim limitations are present in a cited prior art reference

Claims 1-12, 14 and 15 stand rejected under 35 USC §102 as being anticipated by Intel. It is first incumbent upon the Examiner to properly construe Appellant's independent claims 1, 14 and 15. Appellant's claim 1 specifies "said apparatus comprising:" and recites three structures: "a shift circuit," "a bit portion

selecting and combining circuit" and "an instruction decoder . . . for performing operation upon a data word Rn and a data word Rm, wherein said operation yields a value given by" the recited three separate steps.

There is no indication in the record thus far that the Examiner has properly construed claim 1's element (iii) as required by the sixth paragraph of 35 USC §112. "Means-plus-function" claims must be construed to cover the corresponding structure disclosed in Appellant's specification and equivalents thereof. The Examiner has failed to analyze independent claim 1 in this regard.

Additionally, the Examiner suggests that the use of the word "comprising," because of its open-ended nature, allows the Examiner to infer or include any additional steps or structures he wishes from any source in order to meet Appellant's claim requirements. This is not the correct interpretation of "comprising."

As the Federal Circuit has consistently held, "comprising" is an open-ended word which requires, in order for a claim to be infringed, each of the recited structures to be present, but infringement is not negatived by including additional structures. The key point of understanding is that each of the structures recited in the claim, as a minimum, must be present. Similarly, in an anticipatory prior art reference, each of the claimed recited structures must be present (whether or not there are additional structures disclosed in a prior art reference).

Thus, notwithstanding the Examiner's reliance upon the word "comprising," the Examiner still has the burden of establishing where or how the Intel prior art reference discloses each of the three structures recited in Appellant's independent claim 1 or the method steps disclosed in independent claims 14 and 15.

Properly construed, the Examiner must show that the cited prior art reference, Intel, discloses an "instruction decoder . . . for performing an operation upon a data word Rn and a data word Rm." Moreover, as a limitation on this means-plus-function claim, the operation performed by the instruction decoder is an operation which "yields a value given by" and then a value is disclosed, where that value comprises two selecting steps and a combining step.

As noted above, there may be other sequences of steps which provide that same value, and the claim would cover those other sequences as well. The only requirement of the sequences specified is that a value is created by the sequence of steps, and it is the value which forms the functional limitation of the specified instruction decoder operation.

The Examiner admits that "Intel's portions are modified **before** they are combined" (emphasis added). This important admission by the Examiner confirms that independent claims 1, 14 and 15 and the "value given by" the recited steps cannot be anticipated by the Intel reference because there is no teaching of the claimed value! To the extent the Examiner is referring to the steps recited in

Appellant's claims, the value given by those sequence of steps is that portions are selected first and then those portions are combined. The Examiner's admission that the Intel portions are modified before they are combined will necessarily result in a different value from "a value given by" the steps recited in Appellant's independent claims 1, 14 and 15.

Again, the burden is on the Examiner to establish how or where there is any teaching in Intel of the value recited in Appellant's independent claims. The Examiner does not address this, even though Appellant has previously pointed out that any modification prior to combining precludes a value as specified by claims 1, 14 and 15. In detail, Intel does not disclose combining a first portion and a second portion to form respective different bit position portions of an output data word Rd.

The Examiner makes reference to page 7-158 (it is noted that the Examiner does not supply a complete copy of the Intel reference, and thus Appellant cannot review this document with respect to providing comment on the context of the small portions selected by the Examiner and taken out of context from the Intel reference). The cited page describes a parallel shift right and add instruction which involves individually shifting each of the plurality of source elements (or portions) of a first input operand r_2 by a specified number of count bits and adding those shifted source elements (or portions) to corresponding unshifted source

elements of a second input operand r_3. The result of the addition is placed in register r_1.

The importance of the Examiner's admission at the last line of page 6 of the Final Rejection may now be apparent. The Examiner admits that Intel teaches that the first portion and the second portion of the respective data words are modified before they are combined. This is clear because Intel discloses that shifted source elements of the input data word r_2 are added to corresponding unshifted source elements of the input data word r_3. The source elements that the Examiner has identified to be counterparts of the first portion and second portion of claim 1 in the presently claimed invention are each subject to an addition operation before those portions are combined or concatenated. Quite clearly, any modification prior to combining, will preclude the value specified in claims 1, 14 and 15.

In view of the above, Appellant's properly construed independent claims 1, 14 and 15 are not shown in any portion of the Intel reference and therefore any further rejection under 35 USC §102 is respectfully traversed.

5. The Intel reference teaches away from Appellant's claimed invention

Claim 13 stands rejected under 35 USC §103 as unpatentable over Intel as previously applied in the rejection under 35 USC §102. Claim 13 ultimately depends from claim 1 and therefore the above arguments distinguishing

independent claim 1 from the Intel reference are herein incorporated by reference and are not repeated.

Assuming for the purpose of discussion there was some disclosure in the Intel reference of one or more of the components of Appellant's independent claim 1, the burden is on the Examiner to identify where those portions of the disclosure exist in the Intel reference. The Examiner's admission that Intel teaches a value given by first and second portions of the data words which are modified before they are combined ("Intel's portions are modified before they are combined" – admission on page 6 of the Final Rejection), it is clear that such disclosure in Intel would lead one of ordinary skill in the art **away from** obtaining "a value given by" Appellant's two selecting steps and the subsequent combining step. Because the Examiner admits that Intel would teach a different value from that recited in Appellant's independent claims, to the extent Intel contains any teaching, it would lead one of ordinary skill in the art away from Appellant's claimed invention.

Accordingly, any further rejection of claim 13 or any other pending claim as being obvious in view of the Intel reference is respectfully traversed.

VIII. CONCLUSION

By the above analysis, it is clear that the Examiner has ignored the simple meaning of language used in Appellant's claims, i.e., "a value given by." Appellant's claims have clear antecedent basis, both in the claims and in the

specification as originally filed. The Examiner clearly failed to properly analyze independent claim 1 in accordance with *In re Donaldson* and has improperly applied the Intel reference. A detailed analysis of the Intel prior art illustrates that it does not teach all elements recited in Appellant's claims and indeed the Examiner admits that it teaches away, i.e., in Intel "portions are modified before they are combined."

Thus, and in view of the above, the rejection of claims 1-15 under 35 USC §102, §103 and §112 is clearly in error and reversal thereof by this Honorable Board is respectfully requested.

Respectfully submitted,

NIXON & VANDERHYE P.C.

By: _____

Stanley C. Spooner
Reg. No. 27,393

SCS:kmm
Enclosures

IX. CLAIMS APPENDIX

1. Apparatus for processing data, said apparatus comprising:

(i) a shifting circuit;

(ii) a bit portion selecting and combining circuit; and

(iii) an instruction decoder, responsive to an instruction to control said shifting circuit and said bit portion selecting and combining circuit, for performing an operation upon a data word Rn and a data word Rm, wherein said operation yields a value given by:

(a) selecting a first portion of bit length A of said data word Rn extending from one end of said data word Rn;

(b) selecting a second portion of bit length B of said data word Rm subject to an arithmetic right shift specified as a shift operand within said instruction; and

(c) combining said first portion and said second portion to form respective different bit position portions of an output data word Rd.

2. Apparatus as claimed in claim 1, wherein said first portion extends from a most significant bit end of said data word Rn.

3. Apparatus as claimed in claim 1, wherein said first portion extends from a least significant bit end of said data word Rn.

4. Apparatus as claimed in claim 1, wherein said shift operand can specify a number of bit-positions representing an amount of arithmetic right shift to apply to said data word Rm.

5. Apparatus as claimed in claim 1, wherein said first portion and said second portion abut within said output data word Rd.

6. Apparatus as claimed in claim 5, wherein said output data word has a bit length of C and C = A + B.

7. Apparatus as claimed in claim 6, wherein A = B.

8. Apparatus as claimed in claim 1, wherein A = 16.

9. Apparatus as claimed in claim 1, wherein B = 16.

10. Apparatus as claimed in claim 1, wherein said instruction is a single-instruction-multiple-data instruction.

11. Apparatus as claimed in claim 1, wherein said instruction combines a data value pack operation with a shift operation.

12. Apparatus as claimed in claim 1, wherein said shifting circuit is upstream of said selecting and combining circuit in a data path of said apparatus.

13. Apparatus as claimed in claim 12, wherein said selecting and combining circuit is disposed in parallel to an arithmetic circuit within said data path.

14. A method of data processing, said method comprising the steps of decoding and executing an instruction that yields a value given by:

(i) selecting a first portion of bit length A of said data word Rn extending from one end of said data word Rn;

(ii) selecting a second portion of bit length B of said data word Rm subject to an arithmetic right shift specified as a shift operand within said instruction; and

(iii) combining said first portion and said second portion to form respective different bit position portions of an output data word Rd.

15. A computer program provided on a computer-readable medium, said a computer program for controlling a computer to perform the steps of decoding and executing an instruction that yields a value given by:

(i) selecting a first portion of bit length A of said data word Rn extending from one end of said data word Rn;

(ii) selecting a second portion of bit length B of said data word Rm subject to an arithmetic right shift specified as a shift operand within said instruction; and

(iii) combining said first portion and said second portion to form respective different bit position portions of an output data word Rd.

X. EVIDENCE APPENDIX

1. *Webster's Ninth New Collegiate Dictionary*, page 519, definition of "given"

esp : to invest with the sword of
elf) for action ~ vi : to prepare for
repare for action : muster up one's

] vt (1546) : to sneer at : MOCK ~ vi

a horizontal main structural member
upports vertical loads and that con-
an one piece bound together
OE gyrdel; akin to OHG gurtil girdle,
something that encircles or confines:
ng the body usu. at the waist b : a
ent often boned and usu. elasticized
low the hips c : either of two more
e anterior and posterior ends of the
rms and legs respectively: (1) : PEC-
E 2 : the edge of a brilliant that is
IANT illustration
ig, -'l-iŋ\ (1582) 1 : to encircle with
ound : CIRCLE ⟨girdled the world⟩ 3
um in a ring around (a plant) usu. to
of water and nutrients
ung person of either sex] (13c) 1 a
narried woman c : a single or mar-
imes taken to be offensive 2 a : a
sometimes taken to be offensive b
irl·hood \-,hud\ n
man Friday)] (1940) : a female assis-
n a wide variety of tasks
) 1 : a female friend 2 : a frequent
boy or man 3 : MISTRESS 5a
a worldwide scouting movement for

) : featuring scantily clothed women

relating to, or having the characteris-
ter) — girl·ish·ly adv — girl·ish·ness

any of the scouting programs of the
America for girls ages 6 through 17
of grinnen to grin, snarl] chiefly Scot
ot
'zhē-, esp Brit 'ji-\ n [G. fr. It. turn,
a service of many European banks
nsfer of funds among account holders
y check

F girondiste, fr. Gironde, a political
f France represented by its leaders]
rate republican party in the French

l girsh [Ar qirsh] (1946) : QURSH
of girden] vt (15c) 1 : GIRD 2 : to
o measure in girth
h: akin to OE gyrdan to gird] (14c) 1
ne body of an animal to fasten some-
2 a : a measure around a body ⟨for
—Agnes M. Miall⟩ b : SIZE, DIMEN-
~)
o bind or fasten with a girth 3 : to

] (13c) : a medieval weapon consist-
d on a long staff and carried by foot

r. gesir to lie, fr. L jacēre — more at
l of a legal action 2 : the main point
argument)
MF guiterne, modif. of OSp guitarra

\'giv-ən\; giv·ing [ME given, of Scand
akin to OE giefan, gifan to give, L
to make a present of ⟨~ a doll to a
by formal action ⟨the law ~s citizens
or yield to another ⟨gave him her con-
possession of another for his use b
(2) : to administer as a medicine c
or responsibility and usu. for an ex-
to hold⟩ d : to transfer from one's
gave the prisoner to the warden⟩ e
oyees must ~ bond⟩ f : to convey to
mily⟩ 4 a : to offer to the action of
to the visitor⟩ b : to yield (oneself)
a : to present in public performance
iew or observation ⟨gave the signal to
f entertainment ⟨~ a party⟩ 7 : to
signate as a share or portion : ALLOT
ace I ~ —John Milton⟩ b : to make
et forth as an actual or hypothetical
room⟩ d : to attribute in thought or
glory to God⟩ 9 a : to yield as a
PRODUCE ⟨cows ~ milk⟩ ⟨84 divided
BEAR 10 a : to yield possession of
o dispose of for a price : SELL 11 a
n ⟨gave him a push⟩ b : to carry out
ynical smile⟩ c : to inflict as punish-
d : to award by formal verdict ⟨judg-
tiff⟩ 12 : to offer for consideration,
for his absence⟩ 13 a : to suffer the
appropriate or due esp. to something
spirit to God⟩ ⟨~ one's time to the
freely or fully ⟨children giving them-
as a pledge ⟨I ~ you my word⟩ 14 a

: to cause one to have or receive ⟨mountains always gave him pleasure⟩ : to cause a person to catch by contagion, infection, or exposure 15 b : to allow one to have or take ⟨~ me time to consider your plan⟩ b : to be the cause of — used with an infinitive phrase as object ⟨you gave me to understand that you would be late⟩ 16 : to care to the extent of ⟨didn't ~ a hang⟩ ~ vi 1 : to make gifts or presents 2 a : to yield to physical force or strain b : to collapse from the application of force or pressure c : to undergo or submit to change ⟨if the plan is to succeed, stubborn objections will have to ~⟩ 3 a of weather : to become mild b of frozen ground : THAW 4 : to afford a view or passage : OPEN 5 : to enter wholeheartedly into an activity 6 slang : GO ON, HAPPEN ⟨he demanded to know what gave⟩

syn GIVE, PRESENT, DONATE, BESTOW, CONFER, AFFORD mean to convey to another as his possession. GIVE, the general term, is applicable to any passing over of anything by any means ⟨give alms⟩ ⟨give a boy a ride on a pony⟩ ⟨give my love to your mother and sisters —John Keats⟩ PRESENT carries a note of formality and ceremony ⟨present an award⟩ ⟨pray, present my respects to Lady Scott —Lord Byron⟩ DONATE is likely to imply a publicized giving (as to charity) ⟨donate a piano to the orphanage⟩ BESTOW implies the conveying of something as a gift and may suggest condescension on the part of the giver ⟨bestow unwanted advice⟩ ⟨large gifts have I bestowed on learned clerks —Shak.⟩ CONFER implies a gracious giving (as of a favor or honor) ⟨the Queen confers her titles and degrees —Alexander Pope⟩ AFFORD implies a giving or bestowing usu. as a natural or legitimate consequence of the character of the giver ⟨do the laws of his country afford him a remedy? —John Marshall⟩ ⟨the trees afforded us a welcome shade⟩

— give a good account of : to acquit (oneself) well — give birth to 1 : to produce as offspring ⟨gave birth to a son⟩ 2 : to be the source of — give ground : to withdraw before superior force : RETREAT — give or take : to add or subtract (a specified small amount) without material alteration — give rise to : BRING ABOUT — give the gun : to open the throttle of : speed up — give the lie to 1 : to accuse of falsehood 2 : to show to be false, inaccurate, or invalid — give tongue of hounds : to begin barking on the scent — give way 1 a : RETREAT b : to yield the right of way 2 : to yield oneself without restraint or control 3 a : to yield to or as if to physical stress ⟨the wind caused the roof to give way⟩ b : to yield to entreaty or insistence 4 : to yield place 5 : to begin to row

²give n (1868) 1 : capacity or tendency to yield to force or strain 2 : the quality or state of being springy

give–and–take \,giv-ən-'tāk\ n (1778) 1 : the practice of making mutual concessions : COMPROMISE 2 : good-natured exchange of ideas

give·away \'giv-ə-,wā\ n (1882) 1 : an unintentional revelation or betrayal 2 : something given away free; specif : PREMIUM 3 : a radio or television program on which prizes are given away

give away vt (15c) 1 : to make a present of 2 : to deliver (a bride) to the bridegroom at a wedding 3 a : BETRAY b : DISCLOSE, REVEAL 4 : to give (as weight) by way of a handicap

give back vi (1548) : RETIRE, RETREAT ~ vt : to send in return or reply : RESTORE, RETURN

give in vt (1602) : DELIVER, SUBMIT ⟨gave in his resignation⟩ ~ vi : to yield under insistence or entreaty : SURRENDER

¹giv·en \'giv-ən\ adj (14c) 1 : presented as a gift : bestowed without compensation 2 : PRONE, DISPOSED ⟨~ to swearing⟩ 3 of an official document : having been executed : DATED 4 a : FIXED, SPECIFIED ⟨at a ~ time⟩ b : assumed as actual or hypothetical : GRANTED ⟨~ that all men are equal before the law⟩ 5 : immediately present in experience

²given n (1879) : something taken for granted : a basic assumption

given name n (1827) : CHRISTIAN NAME 1

give off vt (1831) 1 : to send out as a branch 2 : EMIT ⟨gave off an unpleasant smell⟩ ~ vi : to branch off

give out vt (14c) 1 a : DECLARE, PUBLISH ⟨giving out that the doctor . . . required a few days of complete rest —Charles Dickens⟩ b : to read aloud the words of (a hymn or psalm) for congregational singing 2 : EMIT ⟨gave out a constant hum⟩ 3 : ISSUE ⟨gave out new uniforms⟩ ~ vi 1 : to become exhausted : COLLAPSE 2 : BREAK DOWN, FAIL

give over vt (14c) 1 : CEASE 2 a : to yield without restraint or control : ABANDON ⟨she gave herself over to laughter before she could go on —H. D. Skidmore⟩ b : to set apart for a particular purpose or use 3 archaic : to pronounce incurable 4 : ENTRUST ~ vi : to bring an activity to an end : STOP ⟨told him to give over and let me alone —Brendan Behan⟩

giv·er \'giv-ər\ n (14c) : one that gives : DONOR

give up vt (13c) 1 : to cease to do (some action) : ABANDON ⟨gave up his job⟩ 2 : to desist from ⟨refused to give up his efforts⟩ 3 a : to abandon (oneself) to a particular feeling, influence, or activity ⟨gave himself up to despair⟩ b : to devote to a particular purpose or use 4 : to declare incurable or insoluble 5 : to despair of seeing ⟨we'd given you up⟩ 6 : to allow (a hit or run in baseball) while pitching ~ vi : to withdraw from an activity or course of action : QUIT — often used with on ⟨don't give up on finishing the project⟩ — give up the ghost : to cease to function : DIE

giz·mo or gis·mo \'giz-(,)mō\ n, pl gizmos or gismos [origin unknown] (1943) : GADGET

giz·zard \'giz-ərd\ n [alter. of ME giser, fr. ONF guisier, fr. L gigeria (pl.) giblets] (15c) 1 a : the muscular enlargement of the alimentary canal of birds that when the crop is present follows it and the proventriculus and has usu. thick muscular walls and a tough horny lining for grinding the food b : a thickened part of the alimentary canal in some animals (as an insect or an earthworm) that is similar in function to the crop of a bird 2 : INNARDS

gla·bel·la \glə-'bel-ə\ n, pl -bel·lae \-'bel-(,)ē, -,ī\ [NL, fr. L, fem. of glabellus hairless, dim. of glaber] (ca. 1823) : the smooth prominence between the eyebrows — gla·bel·lar \-'bel-ər\ adj

gla·bres·cent \glā-'bres-ᵊnt\ adj (1857) 1 : somewhat glabrous 2 : tending to become glabrous

gla·brous \'glā-brəs\ adj [L glabr-, glaber smooth, bald — more at GLAD] (1640) : SMOOTH; esp : having a surface without hairs or projections ⟨~ skin⟩

gla·cé \gla-'sā\ adj [F, fr. pp. of glacer to freeze, ice, glaze, fr. L glaciare, fr. glacies] (1847) 1 : made or finished so as to have a smooth glossy surface ⟨~ silk⟩ 2 : coated with a glaze : CANDIED ⟨~ cherries⟩

gla·cial \'glā-shəl\ adj [L glacialis, fr. glacies] (1656) 1 a : extremely cold : FRIGID ⟨a ~ wind⟩ b : devoid of warmth and cordiality ⟨a ~ handshake⟩ c : coldly imperturbable ⟨maintained a ~ calm⟩ 2 a : of, relating to, or produced by glaciers b : suggestive of the very slow movement of glaciers ⟨progress on the bill has been ~⟩ c (1) : of, relating to, or being any of those parts of geologic time from Precambrian onward when a much larger portion of the earth was covered by glaciers than at present (2) cap : PLEISTOCENE 3 : resembling ice in appearance ⟨~ acetic acid⟩ — gla·cial·ly \-shə-lē\ adv

gla·ci·ate \'glā-shē-,āt\ vt -at·ed; -at·ing (ca. 1656) 1 : FREEZE 2 a : to cover with a glacier b : to subject to glacial action; also : to produce glacial effects in or on — gla·ci·a·tion \,glā-s(h)ē-'ā-shən\ n

gla·cier \'glā-shər also -zhər, esp Brit 'glas-ē-ər or 'glās-ē-\ n [F dial., fr. MF dial., fr. MF glace ice, fr. L glacies; akin to L gelu frost — more at COLD] (1744) : a large body of ice moving slowly down a slope or valley or spreading outward on a land surface

glacio- comb form 1 : glacier ⟨glaciology⟩ 2 \,glā-sh(ē-)ō, -sē-ō\ : glacial and ⟨glaciofluvial⟩

gla·ci·ol·o·gy \,glā-s(h)ē-'äl-ə-jē\ n [ISV] (1889) 1 : any of the branches of science dealing with snow or ice accumulation, glaciation, or glacial epochs 2 : the glacial features of a region — gla·ci·o·log·ic \-ə-'läj-ik\ or gla·ci·o·log·i·cal \-i-kəl\ adj — gla·ci·ol·o·gist \-'äl-ə-jəst\ n

gla·cis \gla-'sē, 'glas-ē\ n, pl glacis \-'sēz, -ēz\ [F, fr. glacer to freeze, slide] (1672) 1 a : a gentle slope : INCLINE b : a slope that runs downward from a fortification 2 : BUFFER STATE; also : BUFFER ZONE

¹glad \'glad\ adj glad·der; glad·dest [ME, shining, glad, fr. OE glæd; akin to OHG glat shining, smooth, L glaber smooth, bald](bef. 12c) 1 archaic : having a cheerful or happy disposition by nature 2 a : experiencing pleasure, joy, or delight : made happy b : marked by a feeling of pleased or satisfied gratification c : very willing ⟨~ to do it⟩ 3 a : marked by, expressive of, or caused by happiness and joy ⟨a ~ shout⟩ b : causing happiness and joy : PLEASANT ⟨~ tidings⟩ 4 : full of brightness and cheerfulness ⟨a ~ spring morning⟩ — glad·ly adv — glad·ness n

²glad vb glad·ded; glad·ding archaic (bef. 12c) : GLADDEN

³glad n (1923) : GLADIOLUS 1

glad·den \'glad-ᵊn\ vb glad·dened; glad·den·ing \'glad-niŋ, -ᵊn-iŋ\ vt (13c) : to make glad ~ vi, archaic : to be glad

glade \'glād\ n [perh. fr. ¹glad] (14c) : an open space surrounded by woods — glady \'glād-ē\ adj

glad–hand \'glad-,hand\ vt (1903) : to extend a glad hand to ⟨candidates ~ing everyone they meet⟩ ~ vi : to extend a glad hand ⟨~ing as if he were running for mayor⟩ — glad–hand·er \'glad-'han-dər\ n

glad hand n (ca. 1895) : a warm welcome or greeting often prompted by ulterior reasons

glad·i·a·tor \'glad-ē-,āt-ər\ n [L, fr. gladius sword, of Celt origin; akin to W cleddyf sword; akin to L clades destruction, Gk klados sprout, branch — more at HALT] (15c) 1 : a person engaged in a fight to the death as public entertainment for ancient Romans 2 : a person engaging in a public fight or controversy 3 : a trained fighter; specif : a professional boxer — glad·i·a·to·ri·al \,glad-ē-ə-'tōr-ē-əl, -'tȯr-\ adj

glad·i·o·la \,glad-ē-'ō-lə\ n [back-formation fr. gladiolus, taken as a pl.] (1926) : GLADIOLUS 1

glad·i·o·lus \,glad-ē-'ō-ləs\ n, pl -li \-(,)lē, -,lī\ [NL, fr. L, gladiolus, fr. dim. of gladius] (15c) 1 or pl gladiolus or glad·i·o·lus·es : any of a genus (Gladiolus) of chiefly African plants of the iris family with erect sword-shaped leaves and spikes of brilliantly colored irregular flowers arising from flattened corms 2 : the large middle portion of the sternum

glad rags n pl (1900) : dressy clothes

glad·some \'glad-səm\ adj (14c) : giving or showing joy : CHEERFUL — glad·some·ly adv — glad·some·ness n

glad·stone \'glad-,stōn, chiefly Brit -stən\ n, often cap [W. E. Gladstone] (1889) : a traveling bag with flexible sides on a rigid frame that opens flat into two equal compartments

glai·kit or glai·ket \'glā-kət\ adj [ME (Sc) glaikit] chiefly Scot (15c) : FOOLISH, GIDDY

glair or glaire \'gla(ə)r, 'gle(ə)r\ n [ME gleyre egg white, fr. MF glaire, modif. of (assumed) VL claria, fr. L clarus clear — more at CLEAR] (13c) 1 : a sizing liquid made from egg white 2 : a viscid substance suggestive of an egg white

glairy \-ē\ adj glair·i·er; -est (1662) : having the characteristics of or overlaid with glair

glaive \'glāv\ n [ME, fr. MF, javelin, sword, modif. of L gladius sword] archaic (15c) : SWORD; esp : BROADSWORD

glam·or·ize also glam·our·ize \'glam-ə-,rīz\ vt -ized; -iz·ing (1936) 1 : to make glamorous ⟨~ the living room⟩ 2 : to look upon as glamorous : ROMANTICIZE ⟨the novel ~s war⟩ — glam·or·iza·tion \,glam-ə-rə-'zā-shən\ n — glam·or·iz·er \'glam-ə-,rī-zər\ n

glam·or·ous also glam·our·ous \'glam-(ə-)rəs\ adj (1882) : full of glamour — glam·or·ous·ly adv — glam·or·ous·ness n

glam·our or glam·or \'glam-ər\ n [Sc glamour, alter. of E grammar; fr. the popular association of erudition with occult practices] (1715) 1 : a magic spell ⟨the girls appeared to be under a ~ —Llewelyn Powys⟩ 2 : an exciting and often illusory and romantic attractiveness; esp : alluring or fascinating personal attraction — often used attributively ⟨~ stock⟩ ⟨~ boy⟩ ⟨~ girl⟩ — glamour vt — glam·our·less \-ləs\ adj

¹glance \'glan(t)s\ vb glanced; glanc·ing [ME glencen, glenchen] vi (15c) 1 : to strike a surface obliquely so as to go off at an angle ⟨the bullet glanced off the wall⟩ 2 a : to flash or gleam with quick intermittent rays of light ⟨brooks glancing in the sun⟩ b : to make sudden quick movements ⟨dragonflies glancing over the pond⟩ 3 : to touch on a subject or refer to it briefly or indirectly ⟨the work ~s at the customs of ancient cultures⟩ 4 a of the eyes : to move swiftly from one thing to another b : to take a quick look at something ⟨glanced at his watch⟩ ~ vt 1 archaic a : to take a quick look at b : to catch a

\ə\ abut \ᵊ\ kitten, F table \ər\ further \a\ ash \ā\ ace \ä\ cot, cart \au̇\ out \ch\ chin \e\ bet \ē\ easy \g\ go \i\ hit \ī\ ice \j\ job \ŋ\ sing \ō\ go \ȯ\ law \ȯi\ boy \th\ thin \t͟h\ the \ü\ loot \u̇\ foot \y\ yet \zh\ vision \à, k, ⁿ, œ, œ̄, ue, u̅e, ᵊ\ see Guide to Pronunciation

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EXHIBIT

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